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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,314	02/12/2002	Takeo Kanade	010129	6431
26285	7590	11/30/2004	EXAMINER	
KIRKPATRICK & LOCKHART LLP 535 SMITHFIELD STREET PITTSBURGH, PA 15222			SENGI, BEHROOZ M	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/074,314	Applicant(s) KANADE ET AL.	
	Examiner Behrooz Senfi	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
 4a) Of the above claim(s) 34-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33, 40 and 41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>oct. 30, 2003</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 – 33, 40 – 41, are drawn to a system for servoing a moving target in a dynamic scene with plurality of camera, master and slave cameras. Classified in class 348/143.
 - II. Claims 34 - 39 are drawn to the method of camera calibration. Classified in class 348/211.9

Because these inventions are distinct for the reason given above and the search required for group 1 is not required for group 2, restriction for examination purpose as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

2. Based on a phone conversation on 11/22/2004 with applicant's representative (Mr. Mark G. Knedeisen). Applicant elects claims 1 – 33, 40 – 41 and canceled claims 34 – 39.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 22, 26 – 30, 32 and 40 - 41, are rejected under 35 U.S.C. 102(b) as being anticipated by Paff (US 5,164,827).

Regarding claims 1, 10, 19, 28 and 40, Paff '827 discloses "a system for servoing/tracking a moving target within a dynamic scene" (i.e. fig. 5, col. 1, lines 5 – 10) comprising; "a master variable pointing camera system" (i.e. fig. 6, master camera), and "a plurality of slave variable pointing camera system" (i.e. fig. 6, slave cameras), and "a master control unit in communication with the master variable pointing camera system for determining based on parameter of the master variable pointing camera system, parameters for each of the slave variable pointing camera system such that, at a point in time, the master variable pointing camera system and the slave variable pointing camera system are aimed at the target and a size of the target in an image from each of the master variable pointing camera system and the slave variable pointing camera system is substantially the same" (i.e. fig. 6, master controller 10, which communicate with the master camera and the slave cameras, and each camera includes, pan motor, tilt, focus and zoom, and the master and slave cameras are interdependent, it is clear that when master camera and slave camera are aimed at a target the size of the object is substantially the same), and "a plurality of slave camera control unit in communication with the master control unit" (i.e. each slave camera has the same component configuration as the master camera in fig. 6).

Regarding claims 2, 11 and 29, the claimed "master and slave pointing camera system include pointing parameters and optical parameters" reads on (i.e. fig. 6, pan, tilt, zoom and focus).

Regarding claims 3 - 4, 12 - 13 and 30, the claimed "master camera includes a master pan/tilt," reads on (i.e. fig. 6, pan/tilt of master camera, and the slave cameras have the same component configuration as the master camera).

Regarding claims 5 - 6, 14 - 15, the limitations as claimed "video image sequence generator in communication with master control unit and the slave camera control unit for generating a video image sequence of the target by outputting an image from" is inherent in master/slave camera surveillance system for monitoring/tracking the object within the scene.

Regarding claims 7, 16, 26, the limitation as claimed "computer vision control unit in communication with the master control unit and the master pointing camera" reads on (i.e. microprocessor or dedicated hardware, col. 3, lines 24 - 27).

Regarding claims 8, 17 and 27, the limitation as claimed "remote operator interface unit in communication with the master control unit" reads on (i.e. fig. 6, monitoring station 11).

Regarding claims 9, 18, 20 and 32, the limitation as claimed "determining a position of the target within the scene and a size of the target at the position in an image" reads on (i.e. fig. 6, pan and tilt features of the master camera, for position and zoom and focus features of the master camera for size of the subject within the scene).

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Regarding claims 21 – 22 and 41, the limitations as claimed “servo control” reads on (fig. 6, 13 – 16 and controller 10), and as for “plurality of master control units in claim 41”, Paff ‘827 (i.e. fig. 6) discloses plurality of controller for communication with each other.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23 – 25, 31 and 33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Paff ‘827 in view of Hobson et al (US 2001/0052131).

Regarding claim 23, Paff ‘827 teaches “a system for servoing/tracking a moving Target/object and a master variable pointing camera system and plurality of slave variable pointing camera system and a master control unit in communication with the master variable pointing camera system” as discussed above in claim 1. Paff ‘827 fails to explicitly teach, “time-stamped images are being stored”. However such features are well known and used in the prior art of the record as evidenced by Hobson ‘131 (i.e. page 2, section 0017). Therefore, taking the combined teaching of Paff ‘827 and Hobson ‘131, it would have been obvious to one skilled in the art at the time of the invention was made to use the teaching of Hobson by storing/recording images with date and time stamp for easy and random access search and recall (i.e. page 2, section 0017).

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Regarding claims 24 - 25, combination of Paff '827 and Hobson '131 teach, "video image sequence includes a frame-sequencing" (i.e. fig. 3, frame grabber 16 of Hobson), and "review images claim 25" reads on (i.e. page 2, section 0016).

Regarding claim 31, the limitations as claimed are substantially similar to claim 23, therefore the ground for rejecting claim 23 also applies here.

Regarding claim 33, combination of Paff '827 and Hobson '131 teach, "selection of pointing camera" (i.e. col. 1, lines 22 – 23 of Paff).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

11/24/2004


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600